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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,327	10/12/2001	Michael D. Pashley	US010525	9295

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[REDACTED] EXAMINER

CARIASO, ALAN B

ART UNIT	PAPER NUMBER
	2875

DATE MAILED: 05/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/976,327	PASHLEY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alan Cariaso	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 03 February 2003.

2a) This action is FINAL.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-14, 18 and 19 is/are rejected.

7) Claim(s) 15-17 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)                  4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                  5) Notice of Informal Patent Application (PTO-152)  
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.                  6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by HED (US 5,301,090).
3. HED '090 discloses a storage compartment (col.2, lines 65-68; col.3, lines 58-62) equipped with light emitting diode light source (fig.5, col.11, lines 6-7), the LED light source comprising a LED light engine (71,72,73) outside the compartment (col.3, lines 1-14) and a light guide inside the compartment (col.12, lines 17-22), the light guide being optically coupled to the LED light engine (fig.5); in which output of the LED light engine is controllable to vary intensity of the illumination (col.12, lines 14-16) inside the compartment; the LED light engine including a plurality of different colors of LEDs including first, second and third colors of red, green and blue, respectively (col.11, lines 1-5); in which respective outputs of the first, second and third color LEDs (71-73) are separately controllable (col.12, lines 13-16).
4. As for the phrase "in which total output of the first, second, and third color LEDs is controllable to vary intensity of the illumination inside the compartment" recited in claims 7 and 8, and "in which respective outputs of the first, second and third color

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LEDs are separately controllable" recited in claim 6, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 4, 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over HED (US 5,836,669) in view of TRUTTMANN-BATTIG (US 2002/0051357 A1).

7. HED discloses an illuminated refrigerator/freezer compartment or cabinet (20-figs.2A,2B) equipped with a light source (23) outside the compartment (20-fig.2B), a light guide (34-38) inside the compartment (20,21,22) optically coupled to the light source (23), which by way of this apparatus provides the method of illuminating frozen foods by a light external mounted from the internal compartment or cabinet by having light guide(s) provided inside the compartments and optically coupled to the light

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source. However, HED does not disclose an LED light engine including a plurality of different colors including first, second, and third colors.

8. TRUTTMANN-BATTIG teaches the use of LED light sources or LED light engines (2,3) with a plural colors including first, second and third colors (white, yellow and red (pg.2, paragraph 0021) for the purposes of visible illumination with low UV and low IR of stored food inside the refrigerator devices (pg.1, paragraphs 0005 and 0021). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the illuminated refrigerator of HED to include a plurality of different color LEDs as taught by TRUTTMANN-BATTIG in order to lessen degradation of the stored food, to save energy and lessen maintenance-replacement costs by using LEDs (pg. 1, paragraph 0002) to illuminate the stored food within the compartment, and to visually enhance display of marketed food contents (pg.2, paragraph 0021).

9. Claims 2, 8, 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over HED (US 5,836,669) in view of TRUTTMANN-BATTIG (US 2002/0051357 A1) as applied to claims 1, 3, 4, 9, 11 and 12 above, and further in view of KOMIYA (JP2000258052A).

10. HED discloses applicant's invention except the function or method of controllably varying the output intensity of illumination from the LEDs or LED light engine. KOMIYA teaches the use of a central control device or dimmer (15) for the purpose varying the illumination outputs of lamps inside a refrigerated showcase or compartment. It would have been obvious to one having ordinary skill in the art at the time of applicant's

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invention to modify the illuminated refrigerator of HED to include the type of dimmer or central control device as taught by KOMIYA in order to help conserve electrical energy usage or energy costs by varying the illumination outputs of the lamps inside the refrigerator during seasonal changes or daily peak/non-peak times of accessing stored foods.

11. Claims 5-8, 13, 14, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over HED (US 5,836,669) in view of TRUTTMANN-BATTIG (US 2002/0051357 A1) as applied to claims 1, 3, 4, 9, 11 and 12 above, and further in view of HED (US 5,301,090).

12. HED '669 modified by TRUTTMANN-BATTIG discloses applicant's claimed invention except the first, second and third colors being red, green and blue that are variably controllable. HED '090 teaches LEDs (col.11, lines 1-7) that are each monochromatic of the colors red, green and blues respectively (fig.5), and the LEDs being variably controlled (col.12, lines 11-16; "83"-fig.5) for the purpose illuminating a compartment with variable white light between wide and narrow bandwidths or any shades of RGB colors (col.3, lines 28-36; col.6, lines 8-38).

13. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify at least the glass-covered illuminated refrigerator (col.15, line 65 to col.16, line 2) of HED '699 to include the type of variably controllable red, green and blue colored LED as taught by HED '090 in order to facilitate control of the

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total output colored illumination of the contents of a commercial glass-covered refrigerator.

***Allowable Subject Matter***

14. Claims 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

15. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection. Due to discovery of the prior art to HED (US 5,301,090) to which the new ground of rejection is based, the objection of claims 5, 13, 14, 18 and 19 as to having allowable subject matter and depending on a rejected base claim is withdrawn.

16. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Truttmann-Battig teaches use of LEDs of multiple colors (pg.2, paragraph 0021) in a refrigeration compartment for purpose of illuminating stored food within selective narrow

wavelengths of visible range, further motivated by having low photochemical activity meaning low IR and low UV light provided by LEDs that would otherwise degrade the food, by saving energy and replacement costs from the energy efficient LEDs and long life (pg.1, paragraph 0002). The rejection of claims above in view of HED and Truttmann-Battig has been modified to clarify the teachings and motivation to combine.

17. In the case of combining Komiya to Hed and Truttmann-Battig, Komiya teaches varying the illumination outputs of lamps inside a refrigeration showcase or compartment by use of a central control device or dimmer (15), further motivated by one of ordinary skill in the art to facilitate adjustability of the light intensity so as to save energy or energy costs during changes in seasons or daily peak/non-peak times of accessing stored food. This motivation has been added to

18. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. WAINWRIGHT et al (US 6,217,188) shows a plurality of 3

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different colored light emitting diodes (RGB) of controllable chromaticity and total intensity by control circuit in fig.4 and the LED's being positioned at input ends of light guides directing light to a display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Cariaso whose telephone number is (703) 308-1952. The examiner can normally be reached on M-F (9:00-5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Alan Cariaso  
Primary Examiner  
Art Unit 2875

AC  
May 1, 2003